Dashboard Program Review Document

- Dashboard Program Overview

- Department/Agency Statuses

- Additional Software Needed

The Dashboard Program has 6 primary objectives that will be achieved through a specific plan of action

Dashboard Program objectives

1. Increase operational efficiency
2. Eliminate wasteful and unnecessary spending
3. Identify opportunities for increasing revenue
4. Address inadequate service offerings
5. Improve communication and transparency
6. **Significantly improve quality of services**

Dashboard Program "Plan of Action"

1. Establish deep understanding of department functions, operations, capacities, and abilities
2. Gather and record **_sufficient[1]_** data on all department operations and activities
3. Create an automated, systematic data recording and analysis **_tool[2]_**
4. Collaborate with directors and other personnel in taking responsibility for Dept./Agency actions
5. **Revise strategy through comprehensive analysis of Dashboard Program data**

1: Some departments and agencies have previously collect some data but this data often does not contain enough richness (detail and depth) to allow for sufficient analysis
2: Currently excel based models that provide a mechanism to analyze data sets

Each Jersey City Department/Agency has an independent Dashboard Program "Tool"

Sample view of a Dashboard Tool

City of Jersey City
Mayor Fulop's Data Dashboard v2.0

FIRE DEPARTMENT (FDJC)

Prepared By:		Week:	
Approved By:		Week #:	
LAST MODIFIED:			

Service Calls	Batallion 1		Batallion 2		Batallion 3	
	Calls	Units	Calls	Units	Calls	Uni
Private Dwellings						
Apartments						
Hotels and Motels						
All Other Residential						
TOTAL RESIDENTIAL						
Public Assembly						
Schools and Colleges						
Health Care and Penal Institutions						
Stores and Offices						
Industry, Utility, Defense, Labs, Manuf.						
Storage in Structures						
Other Structures						
TOTAL STRUCTURE FIRES						
Highway vehicles						
Other Vehicles						
Outside of Structures with value, not vehic.						
Brush, Grass, Wildland, (No Value)						
Rubbish, Dumpsters (No Value)						
All Other Fires						
TOTAL FIRES						
Emergency Medical Responses						
Other Rescue						
Hazardous Materials						
Other HazMat Responses						

Tool overview

- Currently based in Excel[1]
- Working document created in-house
- Heavily customized for each department
- Utilizes department reported data
- Updated by department personnel[2]

To minimize manual data entry, we are looking for automated exports from existing data systems

Tool data contents

- Weekly/monthly department activity log
- Quarterly equipment inventory
- Quarterly personnel records[3]
- Productivity analysis
- Geographic breakdown (ward, zone, etc.)

1: Allows for ease of high-frequency editing while in planning phases; software based system is long term goal
2: Inventory and personnel data updated quarterly; some departments may only require monthly reporting; up to 2 additional team members (in addition to department/agency directors) have been designated to collect data for dashboards
2: City departments will utilize payroll system for personnel analysis

Each Dashboard Tool has evolved into an increasingly department-specific format based on functions of each department

Activity tracking format

FIRE DEPARTMENT (FDJC)

Prepared By: ___ Week: ___ to: ___
Approved By: ___ Week #: ___

PRODUCTIV...

Service Calls	Batallion 1		Batallion 2		Batallion 3		Batallion 4	
	Calls	Units	Calls	Units	Calls	Units	Calls	Units
Private Dwellings								
Apartments								
Hotels and Motels								
All Other Residential								
TOTAL RESIDENTIAL								
Public Assembly								
Schools and Colleges								
Health Care and Penal Institutions								
Stores and Offices								
Industry, Utility, Defense, Labs, Manuf.								
Storage in Structures								
Other Structures								
TOTAL STRUCTURE FIRES								
Highway vehicles								
Other Vehicles								
Outside of Structures with value, not vehic.								
Brush, Grass, Wildland (No Value)								

List format *(project based activities)*

City of Jersey City
Mayor Fulop's Data Dashboard v2.0
DEPARTMENT OF LAW

Prepared By: ___
Approved By: ___

Case Type	Case Number	Status	Date Opened	Date Closed	Initial Exposure Claim	Reasonable Exposure

Geographic/zone/branch breakdown *(if applicable)*

City of Jersey City
Mayor Fulop's Data Dashboard v2.0
JERSEY CITY FREE PUBLIC LIBRARY

Prepared By: ___ Month: ___
Approved By: ___

CURRENT INPUTS

Weekly Statistics		Main	Bookmobile	Cunningham	Five Corners	Greenville	Heights	Miller	Pavonia	Lafayette	Marion	West Bergen	Total
RESOURCE USAGE													
Books checked out	Total												
Books checked out	Adults												
Books checked out	Young adults												
Books checked out	Children												
e-Books checked out	Total												
Audio Books	Total												

Inventory *(quarterly, if applicable)*

INVENTORY	OEM			Senate St.			DPW/JCIA			TOTAL		
	T	N	D	T	N	D	T	N	D	T	N	D
VEHICLES												
Emergency Response Unit	3	0	0	0	0	0	0	0	0	3	0	0
Mobile Rehabilitation	0	0	0	0	0	0	0	0	0	0	0	0
Skid Loader	1	0	0	1	0	0	0	0	0	2	0	0
SUVs	3	0	0	0	0	0	0	0	0	3	0	0
Trucks	2	0	0	0	0	0	0	0	0	2	0	0
Utility (Bobcats)	5	0	0	0	0	0	1	0	0	6	0	0
Trailer - Hauler	2	0	0	0	0	0	2	0	0	4	0	0
Trailers - Container	9	0	0	0	0	0	0	0	0	9	0	0
Trailer - Mobile Office	1	0	0	0	0	0	1	0	0	2	0	0
EQUIPMENT												
5 Gallon Containers	27	0	0	0	0	0	0	0	0	27	0	0
Airway Kit (boxes)	4	0	0	0	0	0	0	0	0	4	0	0
Bandages (boxes)	9	0	0	0	0	0	0	0	0	9	0	0
Barrels	125	0	0	120	0	0	0	0	0	245	0	0
Barricades (Pedestrian)	36	0	0	150	0	0	0	0	0	186	0	0
Boat	1	0	0	0	0	0	0	0	0	1	0	0
BP Kit (boxes)	4	0	0	0	0	0	0	0	0	4	0	0
Cameras (Trailered)	2	0	0	0	0	0	0	0	0	2	0	0

The Dashboard Program will lead to better public visibility and accountability of Jersey City services

Sample Dashboard Program outputs

Edmonton, Canada Open Data Catalogue

Baltimore CitiStat

Sample event map[1]

1:First 250 JCPD service calls, June 1 2013 (provided as an example of "geo-locating" of events and not intended to show any analysis)

- Dashboard Program Overview

- **Department/Agency Statuses**

- Additional Software Needed

Most Jersey City Departments and Autonomous Agencies have not previously utilized a sufficient system for data recording and analysis

Status before Dashboard Program

Legend:
- City Dept. (orange)
- Auton. Agency (purple)
- Dept. @City Hall (gray)

Department	Previously collected sufficient data	Utilize satisfactory data collection software/system[1]	Previously used data to drive decision making
DPW			
Law	✓	✓	
Recreation	✓	✓	
HHS	✓	✓	
Police	✓	✓	
Fire	✓		
HEDC			
OEM			
EDC			
Housing	✓		
JCIA	✓		
MUA	✓	✓	
Parking	✓		
Library	✓		
Redevelopment			
RRC	✓	✓	
BA			

Despite data collection challenges, Directors see the long term value in this program and feedback has been positive

Sample initial challenges *(not exhaustive)*

- Fire Dept. and Parking Authority can only create **paper copies of reports** (must print out and then manually type into excel)

- Department of Recreation did not have a centralized file containing all participants or have standardized attendance procedures

- OEM had **not yet performed a full inventory**

- Many departments **never recorded** a wide variety of department operations and functions

- Microsoft Excel and other electronic data recording tools are vastly underutilized by most departments[2], and some instead have been **using note cards, notebooks, etc.**
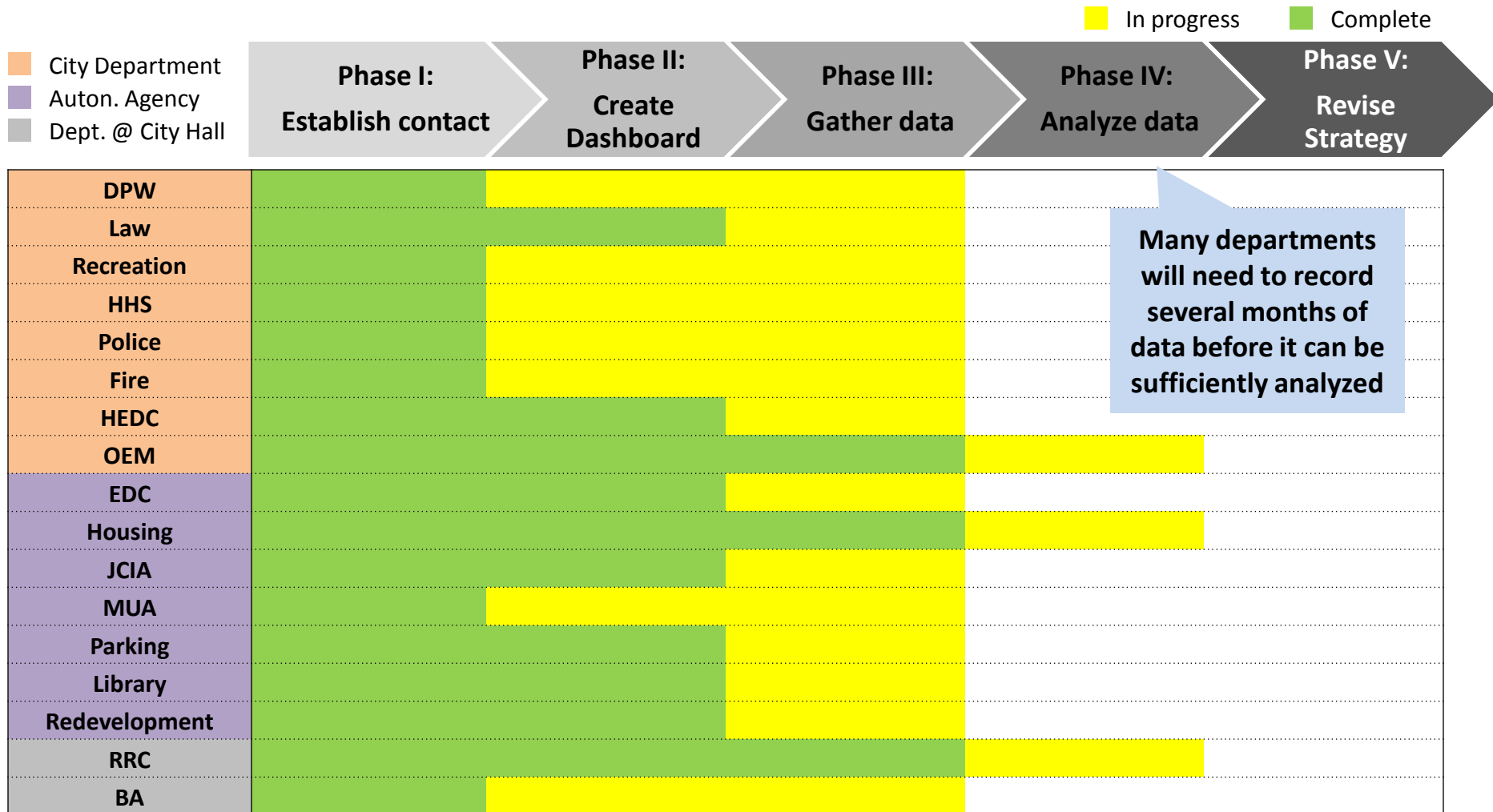
1: While some departments have collected data, some of this data is not readily available for export/analysis
2: Many Jersey City personnel do not have sufficient training in using Excel and some computers do not even have this program installed

Department progress

| | In progress | Complete |

Legend:
- City Department (orange)
- Auton. Agency (purple)
- Dept. @ City Hall (gray)

	Phase I: Establish contact	Phase II: Create Dashboard	Phase III: Gather data	Phase IV: Analyze data	Phase V: Revise Strategy
DPW	Complete	In progress	In progress		
Law	Complete	Complete	In progress		
Recreation	Complete	In progress	In progress		
HHS	Complete	In progress	In progress		
Police	Complete	In progress	In progress		
Fire	Complete	In progress	In progress		
HEDC	Complete	Complete	In progress		
OEM	Complete	Complete	Complete	In progress	
EDC	Complete	Complete	Complete	In progress	
Housing	Complete	Complete	Complete	In progress	
JCIA	Complete	Complete	In progress		
MUA	Complete	In progress	In progress		
Parking	Complete	Complete	In progress		
Library	Complete	Complete	In progress		
Redevelopment	Complete	Complete	In progress		
RRC	Complete	Complete	Complete	In progress	
BA	Complete	In progress	In progress		

Many departments will need to record several months of data before it can be sufficiently analyzed

- Dashboard Program Overview

- Department/Agency Statuses

- **Additional Software Needed**

Two main Dashboard groups will result in two types of Dashboard outputs

Event/project/attendance based

- Activities are primarily ongoing, long-term projects/events

- Data collection focused on updating project/event statuses (i.e. number of projects/events, attendees/users, etc.)

- Some activities may not have a strategy that can be revised

These Dashboards will serve to record events and projects, functioning primarily as a source of information and to communicate activity summaries

Operations based

- Wide variety of short-term operations

- High frequency and shorter relative turnaround time activities

- Data collection requires "in the field" and real-time recording, utilizing considerable amounts of time/resources

These Dashboards will provide deep analysis of data leading to significant insight and opportunities to realign strategy

Data-rich activities[1]

1
- Recreation
- Law
- Redevelopment

2
- HEDC
- HHS
- Parking
- DPW
- RRC
- Fire
- Police
- JCIA
- MUA

→ **FOCUS OF NEXT SLIDE**

3
- Housing
- EDC
- BA
- OEM
- Library

4

Data-lean activities

← Event/project/attendance based
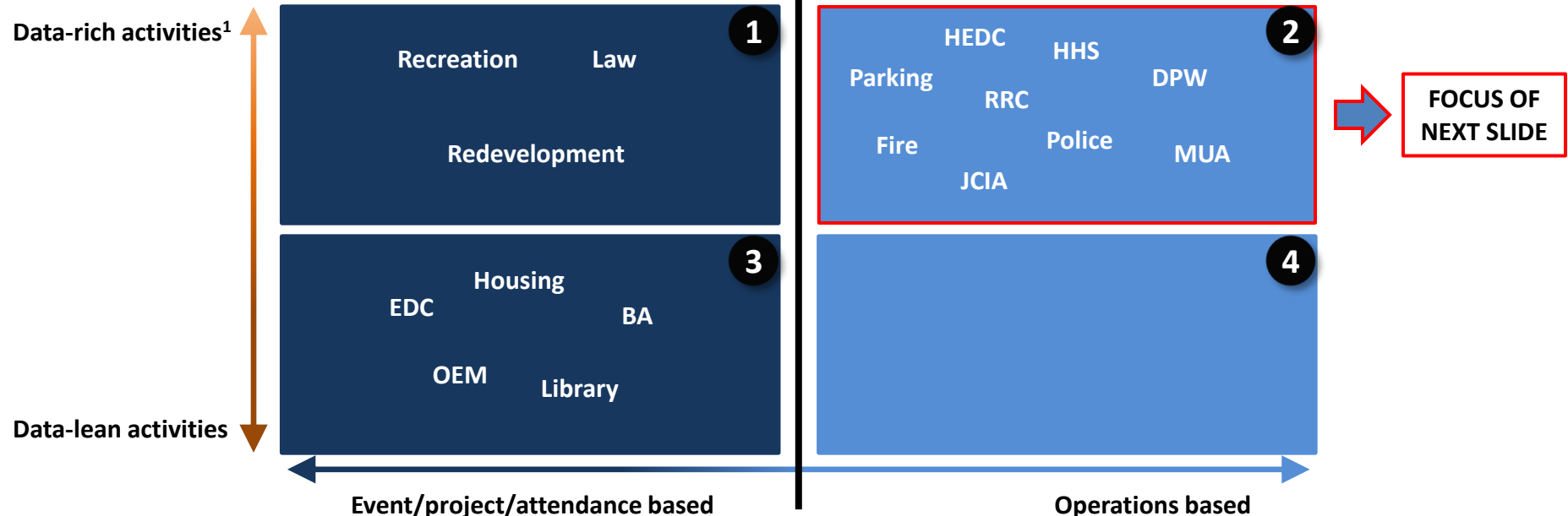
Operations based →

1: Each activity requires recording a long list of data points: i.e. address, time, manpower, type of incident, length of incident, resources , etc.

Data-rich, operations based activities will benefit from customized software capable of recording data in real-time and "in the field"

Manual data entry using excel is creating a massive personnel capacity burden

- Data-rich, operations based activities require recording of a long list of data points for every activity
- Most of these activities occur frequently, exponentially increasing time required to input data
- Traditional Dashboards using excel would require personnel to "return to base" and fill out paperwork after work is completed (or use a dispatcher dedicated to data entry as with JCMUA)

Efficiency increases if data recording occurs within normal workflow process

- Available software can record all data "in the field" and in real-time, reducing time spent on data recording and time from activity completion to activity data recording
- Data recording that occurs within normal workflow will allow reallocation of data entry resources

Real-time and "in the field" data recording minimizes human error

- Accuracy no longer relies on manual data recording systems (i.e. human memory, copying from one source to another, etc.)
- Automated data logging will be able to capture more granular data on activities

Data analysis will be available to a larger audience at a faster rate

- Analyses no longer require the submission of a report/data file as data is available immediately[1]
- Analyses can update "on the fly" using real-time data
- Analyses not dependent on manual calculations in excel
- All users can create and/or view automated analyses

1: The most common type of delay experienced so far (locating late/missing data)

We are asking the City Council to help us purchase additional software to improve Dashboard Program functionality

Necessary software requirements

Data recording capabilities

- Full functionality **"In the field"**

- **Real time** data uploads

- **Within** normal department **workflow**

- **Asset mapping** (i.e. fire hydrants, sewer lines, trees, etc.)

- Produces **instantaneous analyses** to be viewed by Mayor's staff and/or the public

Additional features needed

- **Automated geocoding** (location mapping) of operations

- **Interface with GovQA** (request completion notification)

- **Allows for seamless data sharing between departments** (i.e. Fire Dept. can view building code inspections en route to emergency)

Applicable departments[1]

- HEDC (in progress)

- DPW/JCIA(priority)

- HHS (priority)

- Police

- Parking

- FIRE

- MUA

1: Not applicable to event/project based departments; the RRC already utilizes sufficient software; Parking still in discussions over feasibility with State mandated software programs

Dashboard Program Review Document

Dashboard program team

Primary contact

Team members

Name	Role	Contact Information
Vivian Brady-Phillips	Deputy Mayor	vbrady-phillips@jcnj.org
Muhammed Akil	Chief of Staff	muhammeda@jcnj.org
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Doug Carlucci	Mayor's Aide	dcarlucci@jcnj.org
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